IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims:

1. (Currently Amended) A network environment supporting multiple peer-to-peer relay networks, comprising:

a main peer-to-peer relay network including all peer systems in the multiple peer-to-peer relay networks, at least one of the peer systems including at least one processor;

a first peer-to-peer relay network including ~~N1~~ a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer systems including at least one processor; and

a second peer-to-peer relay network including ~~N2~~ a plurality of second peer systems, independent from the first sub-network, that are a second sub-network of the main peer-to-peer relay network, at least one of said second peer systems including at least one processor;

~~wherein each peer system in said first peer-to-peer relay network is connected to a number of other peer systems in said first peer-to-peer relay network that is less than or equal to a first connection limit, said first connection limit is greater than or equal to 2, said first connection limit is less than or equal to N1-2, each peer system in said first peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a first set of one or more relay rules, each peer system in said second peer-to-peer relay network is connected to a number of other peer systems in said second peer-to-peer relay network that is less than or equal to a second connection limit, said second connection limit is greater than or~~

~~equal to 2, said second connection limit is less than or equal to N2-2, each peer system in said second peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a second set of one or more relay rules, and at least one peer system in said first peer-to-peer relay network is also in said second peer-to-peer relay network~~

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network and is not relayed to a peer in the second peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer not in the first peer-to-peer relay network is relayed to all peers in the main peer-to-peer relay network.

2. (Original)   The network environment of claim 1, further comprising:

a server connected to each peer system.

3. (Original)   The network environment of claim 1, wherein:

said first connection limit is the same as said second connection limit.

4. (Original)   The network environment of claim 1, wherein:

said first set of one or more relay rules is different from said second set of one or more relay rules.

5. (Original)   The network environment of claim 1, wherein:

all of the peer systems in said second peer-to-peer relay network are also in said first peer-to-peer relay network.

6. (Original)   The network environment of claim 5, wherein:

at least one peer system in said first peer-to-peer relay network is not in said second peer-to-peer relay network.

7. (Original)   The network environment of claim 5, wherein:

the peer systems in said first peer-to-peer relay network represent players in an online game.

8. (Original)   The network environment of claim 7, wherein:

the peer systems in said second peer-to-peer relay network represent players in said online game that are on the same team.

9. (Original)   The network environment of claim 1, wherein:

data relayed in said first peer-to-peer relay network is network service data.

10. (Original)   The network environment of claim 1, wherein:

data relayed in said first peer-to-peer relay network is data for an online environment.

11. (Original)   The network environment of claim 10, wherein:

data relayed in said first peer-to-peer relay network is data for a lobby environment.

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12. (Currently Amended)   The network environment of claim [[10]] 11, wherein:

data relayed in said second peer-to-peer relay network is data for a chat room in said lobby environment.

13. (Original)   The network environment of claim 10, wherein:

data relayed in said second peer-to-peer relay network is data for an online game.

14. (Currently Amended)   The network environment of claim 1, further comprising:

a third peer-to-peer relay network including N3 peer systems;

wherein each peer system in said third peer-to-peer relay network is connected to a number of other peer systems in said third peer-to-peer relay network that is less than or equal to a third connection limit, said third connection limit is greater than or equal to 2, said third connection limit is less than or equal to N3-2, each peer system in said third peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a third set of one or more relay rules, and

wherein at least one peer system in said third peer-to-peer relay network is also in said first peer-to-peer relay network.

15. (Original)   The network environment of claim 14, wherein:

none of the peer systems in said third peer-to-peer relay network are in said second peer-to-peer relay network.

16. (Original)   The network environment of claim 1, wherein:

at least one peer system is a network-enabled game console.

17. (Original)   The network environment of claim 1, wherein:

at least two peer systems are connected through the Internet.

18. (Currently Amended)   A method of relaying data in a peer-to-peer relay network, comprising:

establishing a main peer-to-peer relay network including all peer systems in the peer-to-peer relay network, at least one of the peer systems including at least one processor;

establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer systems including at least one processor;

establishing a second peer-to-peer relay network including a plurality of second peer systems, independent from the first sub-network, that are a second sub-network of the main peer-to-peer relay network, at least one of said second peer systems including at least one processor;

receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system in a peer-to-peer relay network,;

selecting ~~a~~ another peer in the first peer-to-peer relay network corresponding to said received data~~, wherein said selected peer-to-peer relay network has a corresponding set of one or more relay rules~~;

~~applying said set of one or more relay rules to select zero or more peer systems indicated by said set of one or more relay rules to which to relay said data;~~ and

relaying said data to the another peer system,~~any peer systems selected by applying said set of one or more relay rules~~

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network and is not relayed to a peer in the second peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer not in the first peer-to-peer relay network is relayed to all peers in the main peer-to-peer relay network.

19. (Original)   The method of claim 18, wherein:

said relaying peer system is in two or more peer-to-peer relay networks, and said relaying peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said relaying peer system belongs.

20. (Original)   The method of claim 18, wherein:

said relaying peer system stores a respective connection limit and a respective set of one of more relay rules for each peer-to-peer relay network to which said relaying peer system belongs, a connection limit defines a number of other peer systems up to which a peer system is

permitted to connect in that peer-to-peer relay network, and a set of one or more relay rules

defines how a peer system is to relay data to other peer systems connected to that peer system in

that peer-to-peer relay network.

    21. (Currently Amended)   A peer system in a peer-to-peer relay network,

comprising:

    means for establishing a main peer-to-peer relay network including all peer systems in

the peer-to-peer relay network, at least one of the peer systems including at least one processor;

    means for establishing a first peer-to-peer relay network including a plurality of first peer

systems that are a first sub-network of the main peer-to-peer relay network, at least one of said

first peer systems including at least one processor;

    means for establishing a second peer-to-peer relay network including a plurality of

second peer systems, independent from the first sub-network, that are a second sub-network of

the main peer-to-peer relay network, at least one of said second peer systems including at least

one processor;

    means for receiving data at a relaying peer system in the first peer-to-peer relay network

from a sending peer system connected to the relaying peer system ~~in a peer-to-peer relay~~

~~network~~;

    means for selecting ~~a~~ another peer in the first peer-to-peer relay network corresponding to

said received data ~~, wherein said means for applying said set of one or more relay rules to select~~

~~zero or more peer systems indicated by said set of one or more relay rules to which to relay said~~

~~data~~; and

means for relaying said data to <u>the another peer system,</u><s>any peer systems selected by</s>

<s>applying said set of one or more relay rules</s>

<u>wherein a message addressed from a peer in the first peer-to-peer relay network to</u>

<u>another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-</u>

<u>peer relay network and is not relayed to a peer in the second peer-to-peer relay network, and</u>

<u>wherein a message addressed from a peer in the first peer-to-peer relay network to a peer</u>

<u>not in the first peer-to-peer relay network is relayed to all peers in the main peer-to-peer relay</u>

<u>network.</u>

22. (Original)   The peer system of claim 21, wherein:

said peer system is in two or more peer-to-peer relay networks, and said peer system has

respective sets of one or more connections to other peer systems for each peer-to-peer relay

network to which said peer system belongs.

23. (Original)   The peer system of claim 21, wherein:

said peer system stores a respective connection limit and a respective set of one of more

relay rules for each peer-to-peer relay network to which said peer system belongs, a connection

limit defines a number of other peer systems up to which a peer system is permitted to connect in

that peer-to-peer relay network, and a set of one or more relay rules defines how a peer system is

to relay data to other peer systems connected to that peer system in that peer-to-peer relay

network.

24. (Currently Amended)   A computer program ~~product,~~ product, ~~stored on a tangible storage medium, for use in~~ comprising a computer usable medium having a computer-readable program embodied therein, said computer readable program adapted to be executed to implement a peer system in a peer-to-peer relay network, the ~~program comprising executable instructions that cause a computer to~~ method comprising:

establishing a main peer-to-peer relay network including all peer systems in the peer-to-peer relay network, at least one of the peer systems including at least one processor;

establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer systems including at least one processor;

establishing a second peer-to-peer relay network including a plurality of second peer systems, independent from the first sub-network, that are a second sub-network of the main peer-to-peer relay network, at least one of said second peer systems including at least one processor;

~~process received~~ receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system ~~in a peer-to-peer relay network,~~;

~~select~~ selecting ~~a~~ another peer in the first peer-to-peer relay network corresponding to said received data~~, wherein said selected peer-to-peer relay network has a corresponding set of one or more relay rules~~;

~~apply said set of one or more relay rules to select zero or more peer systems indicated by said set of one or more relay rules to which to relay said data;~~ and

~~relay~~ relaying said data to the another peer system~~, any peer systems selected by applying said set of one or more relay rules~~

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network and is not relayed to a peer in the second peer-to-peer relay network, and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer not in the first peer-to-peer relay network is relayed to all peers in the main peer-to-peer relay network.

25. (Currently Amended)　　　The computer program product of claim 24, wherein:

said peer system is in two or more peer-to-peer relay networks, and said peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said peer system belongs.

26. (Currently Amended)　　　The computer program product of claim 24, wherein:

said peer system stores a respective connection limit and a respective set of one of more relay rules for each peer-to-peer relay network to which said peer system belongs, a connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network, and a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network.